



Accelerating Markets for Super Efficient Products and Services

Federal Utility Partnership
Working Group 2009 Fall
Meeting

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The background features several overlapping blue geometric shapes. A large, light blue triangle is centered, pointing downwards, and contains the text. It is surrounded by darker blue shapes: a large triangle at the top left, a triangle at the bottom left, and a tall, narrow triangle on the right side. All shapes have rounded corners.

OUR MISSION

CEE increases the effectiveness of energy efficiency programs by enhancing communications and harmonizing approaches across programs to advance energy efficiency for the public benefit.

Who We Are

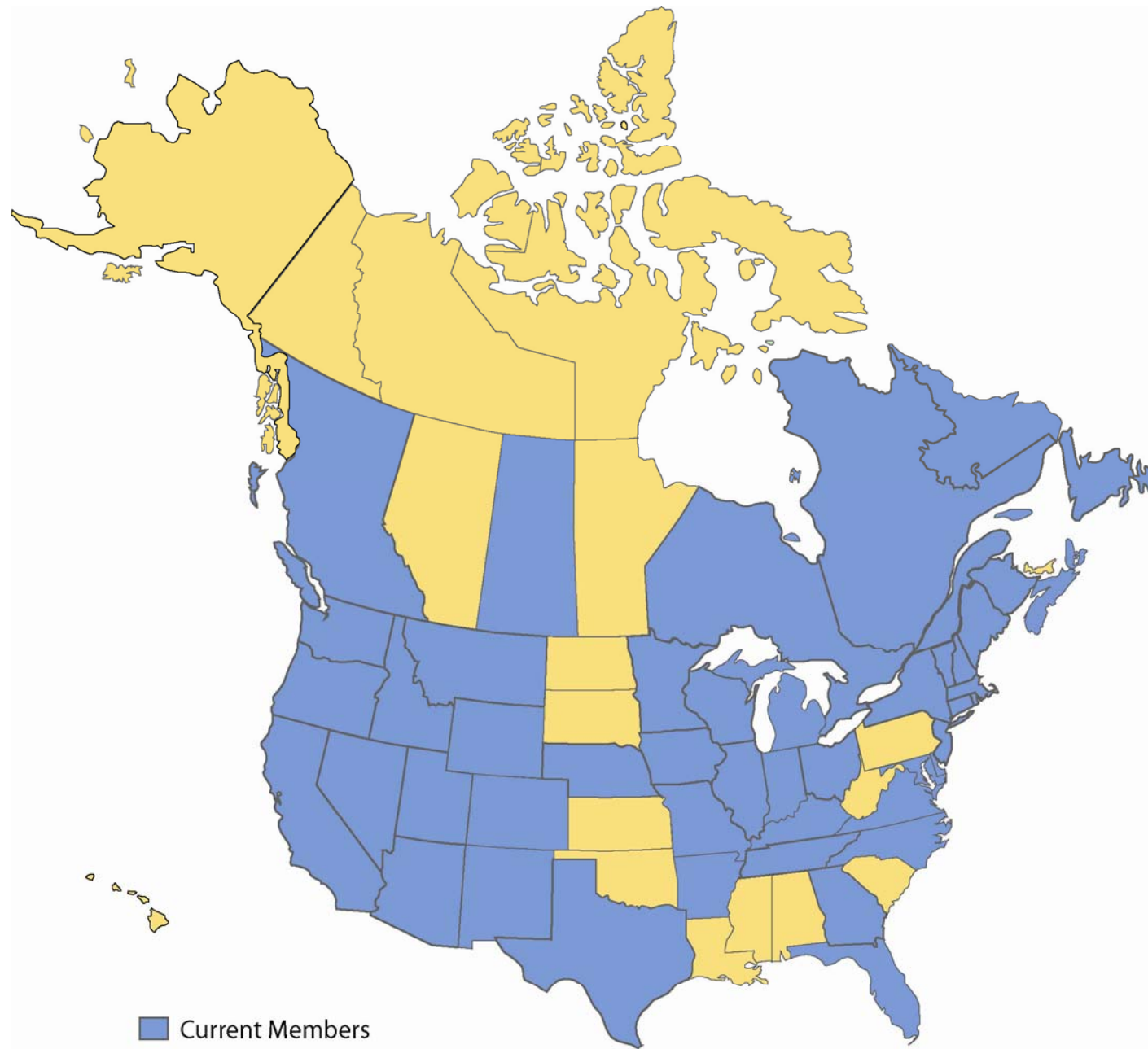
- ▶ Created in 1991 by administrators of ratepayer-funded EE programs and non-profits
- ▶ As their organization to:
 - Leverage efficiency resources (US & Canada) to address structural market barrier & capture greater total savings
 - Share “best” practices
 - Identify common needs to enhance savings impacts

Who We Are

- ▼ Nonprofit
- ▼ Governed and funded by members and sponsors
- ▼ 118 members from states and provinces with ratepayer-funded efficiency programs
- ▼ Staff of 26
- ▼ \$3 million organizational budget

Members

- ▶ Develop and administer voluntary ratepayer-funded energy efficiency programs
- ▶ In 2008 budgeted over \$4.5 billion (\$3.9 billion electric) to bring energy efficiency to the public



Restricted membership

- ▼ **Efficiency Program Administrators** – utilities and nonutilities with ratepayer funded programs
 - ▼ **Public Stakeholders** - such as DOE national Labs, state/provincial energy offices, government energy research agencies, efficiency organizations (regional and national)
-
- ▼ **NO** Organizations with private interests, e.g., manufacturers, consultants, program contractors

What We Do

- ▶ Through committees of members we facilitate national initiatives designed to overcome market limitations and/or uncover market opportunities
- ▶ Work to achieve consensus on performance levels and other aspects of import Members voluntarily adopt initiatives locally
 - Result: greater consistency and market focus
 - Greater market recognition of value and how to locate associated products and services

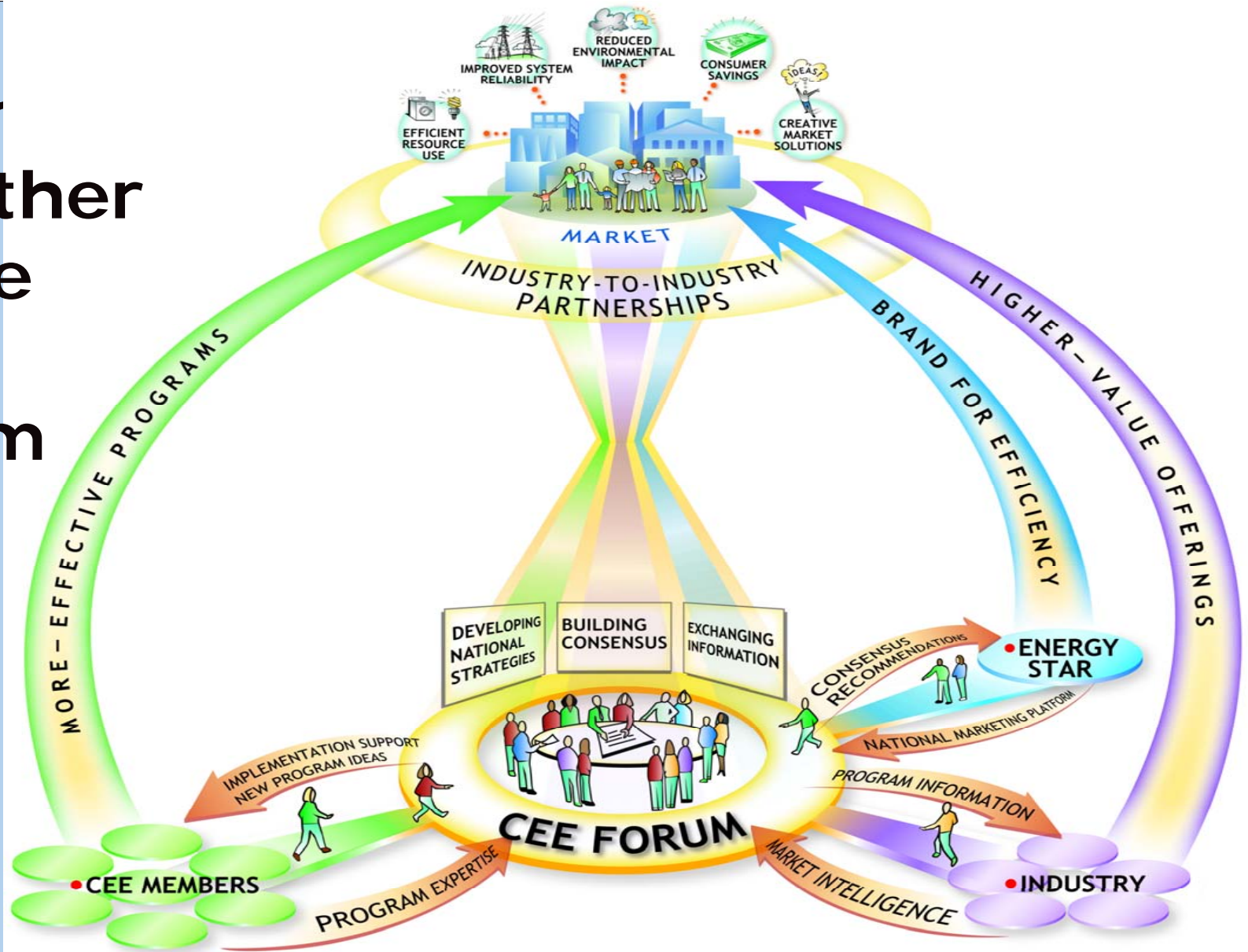
Increased Impact Through Collaboration

Pursue opportunities best undertaken together

- ▶ Use national marketing platforms for local programs
- ▶ Harmonize programs around consensus specifications of high efficiency
- ▶ Leverage best practices through peer to peer exchange
- ▶ Work as the Efficiency Program Industry to partner and leverage other national industries

Programs Together At the CEE Forum

Local
Efficiency
Programs



D. Arsenian 2005

Revolution in Clothes Washer Efficiency

51% of Clothes Washers were ENERGY STAR in 2006

Market success enabled CEE Performance Specifications to increase over time

	MEF	WF			MEF	WF			MEF	WF
								Tier 3	2.20	4.5
Tier 4B	1.80	5.5		Tier 3B	1.80	5.5		Tier 2	2.00	6
Tier 4A	1.80	7.5		Tier 3A	1.80	7.5		Tier 1	1.8*	7.5*
Tier 3	1.60	8.5		Tier 2	1.60	8.5				
Tier 2	1.42	9.5		Tier 1	1.42	9.5				
Tier 1	1.26	11								
1995-2002				2004				2007		

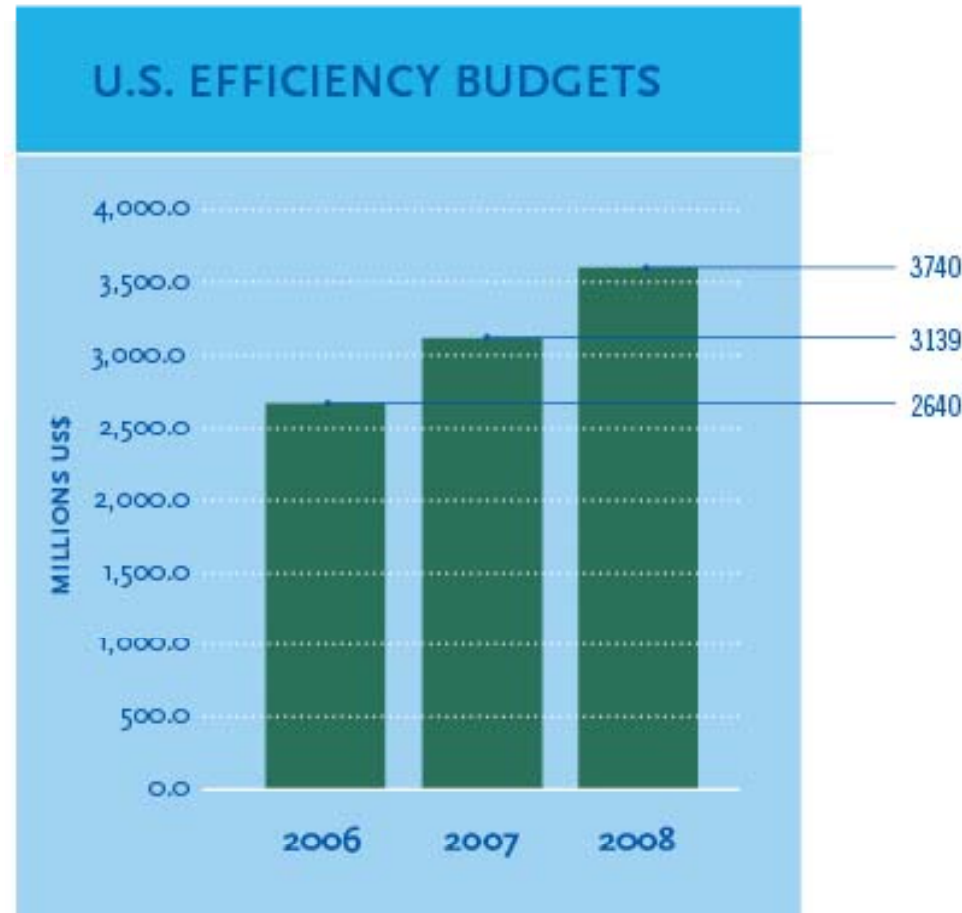
ENERGY STAR Levels

*ENERGY STAR 2009 = CEE Tier 1

*ENERGY STAR late 2011 = CEE Tier 2

2008 U.S. Efficiency Budgets Grow to \$3.7B

Combined Fuels

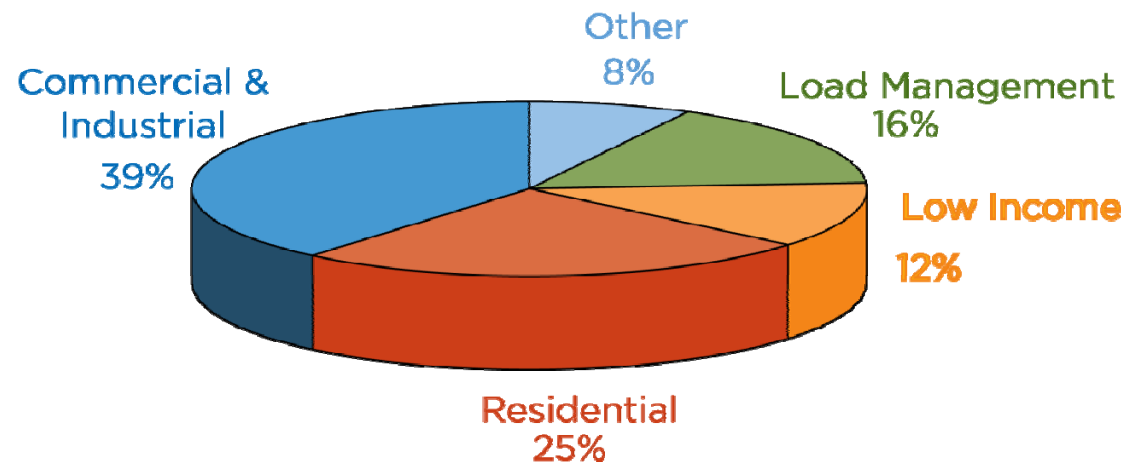


U.S. and Canada combined reach \$4.5B

Program Funding

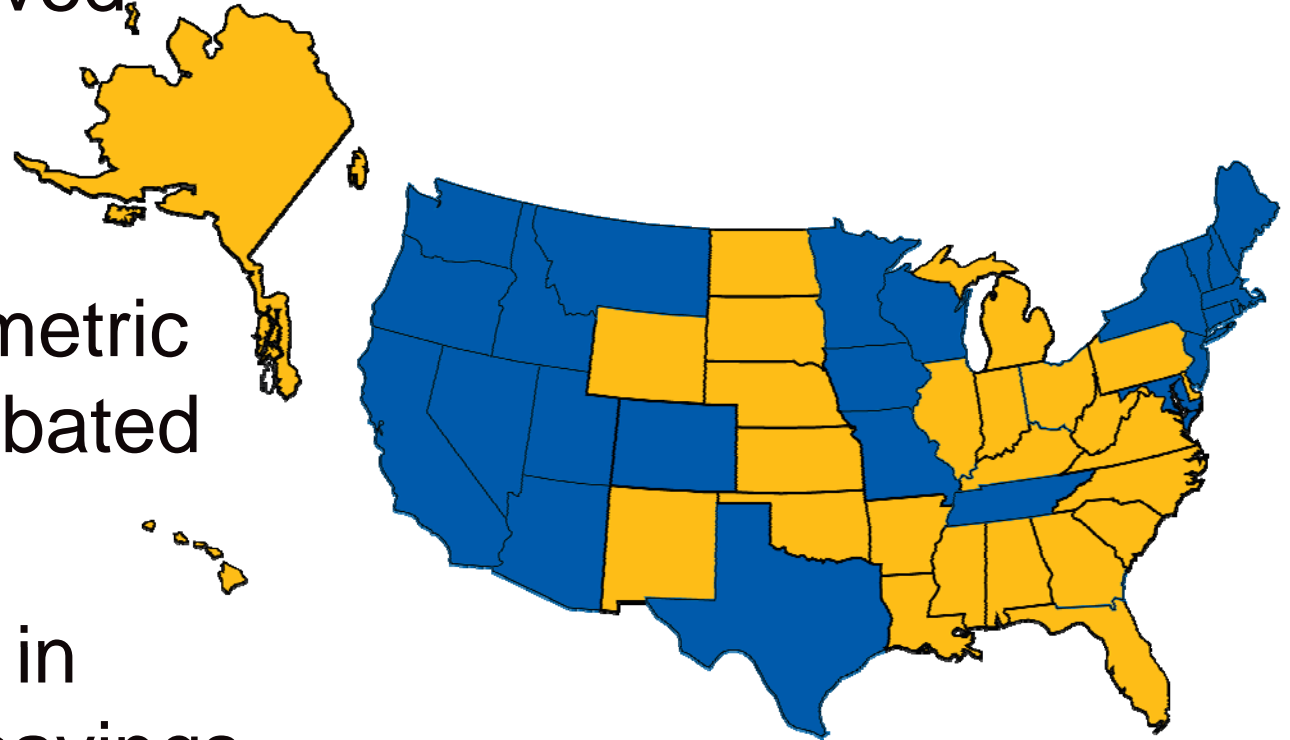
- ▶ Commercial/industrial program budgets comprise 39% of total
- ▶ Followed by residential programs (25%) and load management (16%)
 - See the CEE [2008 Annual Industry Report](#) for details

Combined Electric and Gas Budgets
by Sector, United States, 2008

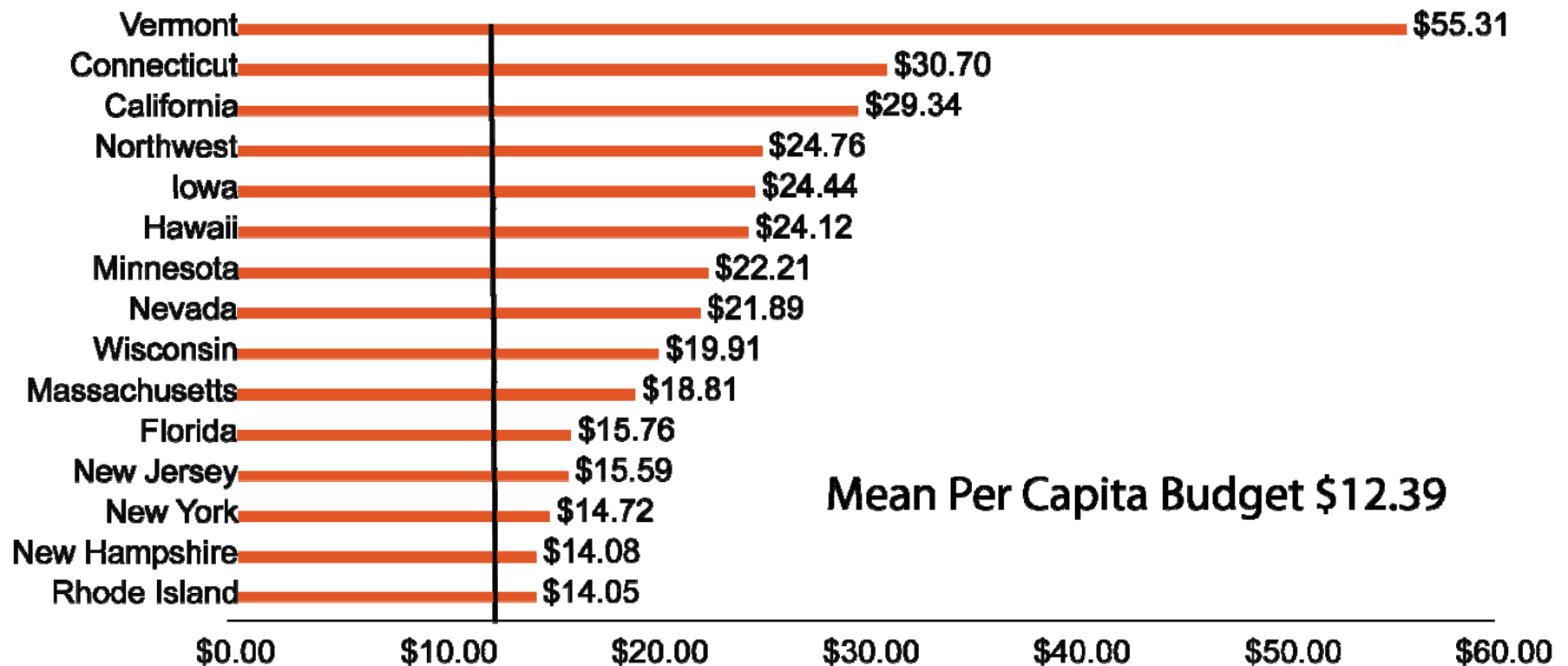


2007 Programs Report Impact Data

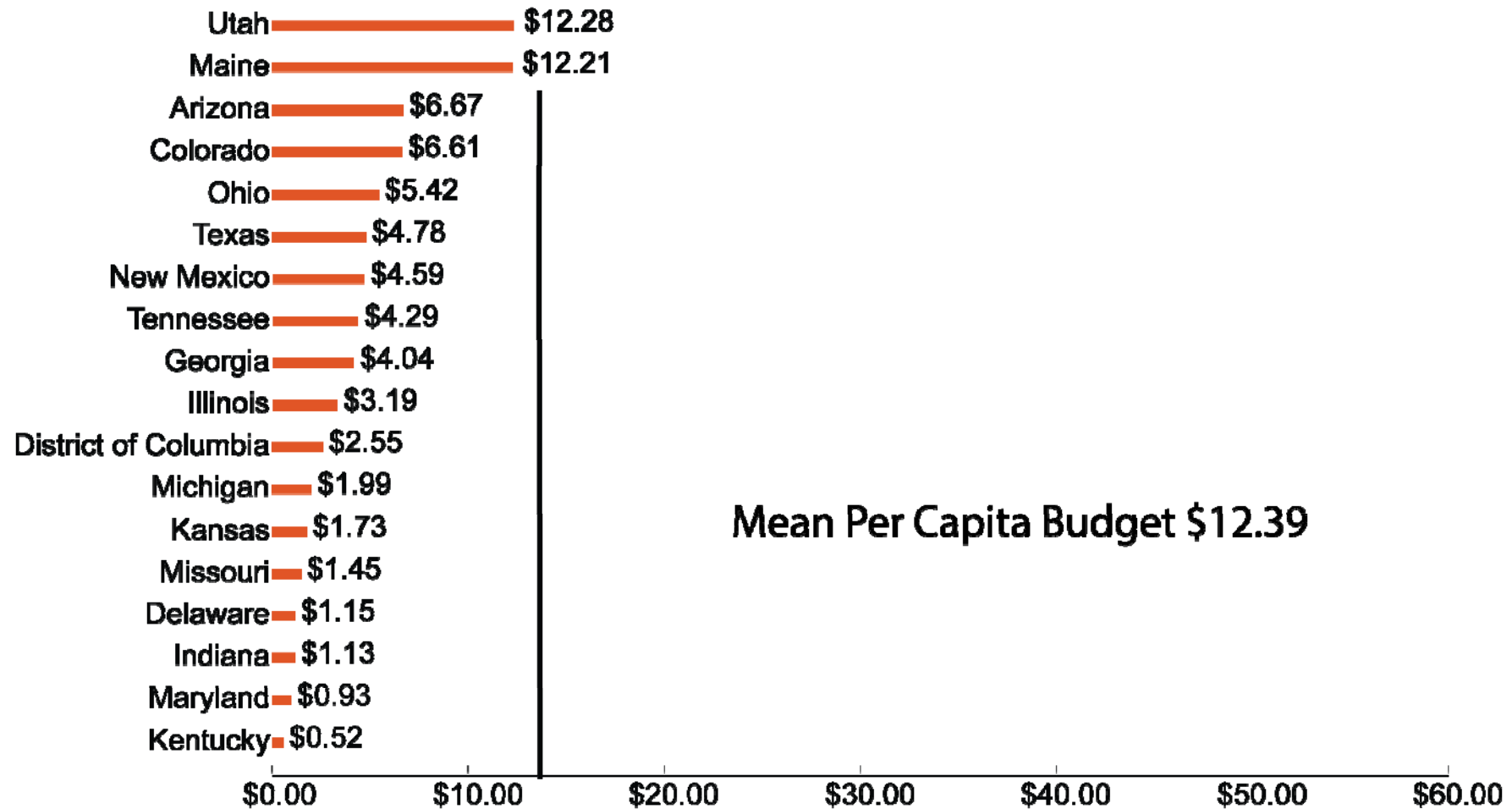
- ▶ 63 TWh saved
- ▶ 39 million metric tons CO₂ abated
- ▶ \$5.5 billion in ratepayer savings



15 States Exceed Per Capita Mean



Remaining States Range from \$0.50 to \$12



Common Program Areas

▼ Residential

- Lighting
- Appliances
- HVAC
- Whole House
- Consumer Electronics

▼ Industrial

- Motors and Motor Systems
- Water-Wastewater
- Energy Management

▼ Commercial

- Lighting
- HVAC
- Kitchens
- Whole Building Performance
- Servers and Data Centers

▼ Gas appliances & HVAC

13 Current CEE Initiatives

RESIDENTIAL

- ▼ Super Efficient Home Appliances-CW,DW,AC,RF
- ▼ Consumer Electronics-TV
- ▼ Lighting-CFL bulb/fixture
- ▼ Gas Space Heating
- ▼ HVAC and Quality Installation
- ▼ Gas Water Heating

COMMERCIAL & INDUSTRIAL

- ▼ Building Performance
- ▼ Lighting
- ▼ HVAC
- ▼ Kitchens
- ▼ Data Centers and Servers
- ▼ Motors and Motor Systems
- ▼ Municipal Water and Wastewater

“Innovative” Models and Projects

▼ Golden Carrot™ (SERP)

- Manufacturer Competition
- Pool Funds
- Secure the Design, Manufacturer and Promotion of a New-to-the-Market Product (Refrigerator)

▼ Bulk Procurement (CEE/NYPA SEAR)

- Encourage Competition for New Markets or Market Share
- Potentially Alleviate Market Risk
- Attract Attention to Issue, Sponsors and Winner

“Innovative” Models

▼ Design Charrette (CEE/ALA/DOE Efficient Lighting)

- Inform Designers of Technical Capabilities
- Encourage Interaction between Designers and Technical Staff
- Emphasize Unique Properties of Technology
- Capture General Conclusions on New Applications/Uses

▼ Design Competition (LFT)

- Encourage Development and Production
- Attract Key Market Player Attention
- Prime the Sales and Distribution Pipeline

“Innovative” Models

- ▶ Common Program Components (CEE HVAC Initiatives)
 - Performance Specs
 - Tiers
 - Guidance/Messaging
- ▶ Joint Campaigns/Branding (ENERGY STAR/MDM)
 - Establish Credibility of Concept/Ease of Identification
 - Create Focus on Desired Issue
 - Provide Multi-Stakeholder Endorsement
 - Encourage Ongoing Stakeholder Communication
 - Provide Platform for Efficient Delivery of Messages, Tools and Calls to Action
- ▶ Equipment Directories (CEE/ARI a/c Equipment)
 - Credible Guidance Particularly in “Noisy” Markets
- ▶ Conferences/Summits/Venues for Focused Interaction (Industry Partners)

CEE Qualified Product Lists

▼ Commercial Kitchens

- Refrigeration
- Hot Food Holding Cabinets
- Ice Makers
- Steamers

▼ Appliances

- Commercial Clothes Washers
- Residential Clothes Washers
- Residential Dishwashers
- Residential Refrigerators

▼ Commercial Lighting

- High Performance T8 Lamps and Ballasts
- Reduced Wattage T8 Lamps and Ballasts

▼ Residential

- Televisions

▼ Gas

- Residential Boilers
- Residential Furnaces
- Residential Storage Water Heaters
- Residential Tankless Water Heaters

EE Savings Potential from Smart Grid Technology

- ▶ [EPRI \(2008\)](#): Potential savings in 2030 of five applications enabled by a Smart Grid
 - Between 56 and 203 billion kWh and between 31 and 114 million metric tons CO₂
- ▶ [Hledik \(2009\)](#): Annual power sector CO₂ emissions reductions by 2030 from a national smart grid strategy
 - Conservative scenario (currently available technologies only): 5 %
 - Expanded scenario (includes future smart grid technologies): almost 16 %

EE Program Resources

- ▶ EPA/DOE [National Action Plan for Energy Efficiency](#)
 - A private/public initiative to create a sustainable, aggressive, national commitment to energy efficiency through the collaborative efforts of gas and electric utilities, utility regulators, and other partner organizations.
- ▶ CEE [summaries of EE programs](#), [initiatives](#) and [Qualifying Products Lists](#)

EE Evaluation Resources

- ▶ CEE/IPU Evaluation Webinar [“Metering the Unmetered Resource: Evaluation Methods for Achieving Diverse Energy Efficiency Policy Objectives”](#)
 - Introduction to energy efficiency program evaluation for regulators assessing the role of efficiency in modern utility energy portfolios and for new EE program administrators

EE Evaluation Resources

▼ The CEE [Energy Efficiency Program Evaluation: A Guide to the Guides](#)

- Includes key evaluation guides, sources of papers and reports, and links to wide variety of resources such as deemed savings databases

▼ The CEE [MAPE Clearinghouse](#)

- Searchable database of CEE members' Market Assessments, Program Evaluations (MAPE) and related public documents

Contact

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